



GOLDEN PAINTS RESOURCE

GAC & SID

Art with Jane Monteith

Special Purpose Mediums



GAC (short for Golden Artist Colors) Specialty Acrylic Polymers are based on 100% acrylic polymer emulsions. The **GACs** are useful as mediums or modifiers of acrylic paints. **GACs** can be used to extend acrylic colors, to regulate transparency, create glazes, increase gloss, reduce viscosity or improve adhesion and film integrity. **GAC polymers** can also be used for binding pigment solids for various effects and surfaces. Unlike the other GOLDEN Mediums and Gels, GAC Acrylic Polymers have only a minimum amount of thickeners, levelers, defoamers and surfactants to ensure good film formation.

The consistency of the **GAC** polymers is more fluid and thin than other GOLDEN Mediums, so they will reduce the thickness of most GOLDEN Acrylic Paints. GOLDEN Fluid Acrylics are slightly thicker than the **GACs**, but will exhibit less change in viscosity with the addition of a **GAC** polymer.

Each GAC is a unique polymer with unique benefits and applications. Refer to the product descriptions below to find the proper medium for a particular applications.

For health and safety information, download the [Safety Data Sheet](#) [PDF].

GAC 100 is a thin, translucent, gloss medium. Useful for thinning or extending colors as well as increasing flexibility. Wets out solids more readily than other polymers and is useful for creating homemade paints. GAC 100 provides basic protection from Support Induced Discoloration (SID), for better protection see [GOLDEN Gloss Medium](#). (Item# 3910)

GAC 200 Hard acrylic extender for non-porous surfaces is the hardest and least flexible polymer we offer. It is Ideal for mixing with acrylic colors to increase film hardness, reduce dry film tack and to increase adhesion to many non-porous surfaces. Dries to a clear, high gloss, finish. GAC 200 is not recommended for flexible supports. (Item# 3920)

GAC 400 Stiffens natural fibers and fabrics and is useful for stiffening unprimed canvas or sculpting and shaping fabric. Fibers saturated with GAC 400 will dry to a hard, stiff film. (Item# 3940)

GAC 500 Gloss extender for Fluid Acrylic Colors is a unique balance of film hardness and flexibility offering increased leveling, increased mar resistance and decreased dry film tack. GAC 500 is particularly useful for extending Fluid Acrylic Colors with minimal property change. It can be mixed with Airbrush Transparent Extender for a fast-drying, sprayable isolation coat. (Item# 3950)

GAC 800 is a low-crazing extender for pouring acrylic colors. "Crazing" is the formation crevices in surfaces that develop as acrylic paints and mediums dry. The addition of GAC 800 promotes drying with a smooth, even film, good gloss and flexibility, but with moderate clarity. GAC 800 is also useful for adhesion to chalky surfaces. (Item# 3980)

GAC 900 Heatset fabric painting medium, offers a very soft hand and laundering stability. Mix with High Flow Acrylics to produce "tie-dye" effects, or blend with GOLDEN Heavy Body, Matte or Fluid Acrylics for brush or screen application. For more information on fabric painting see our [Application Information Sheet](#). (Item# 3990)

Blocking Support Induced Discoloration

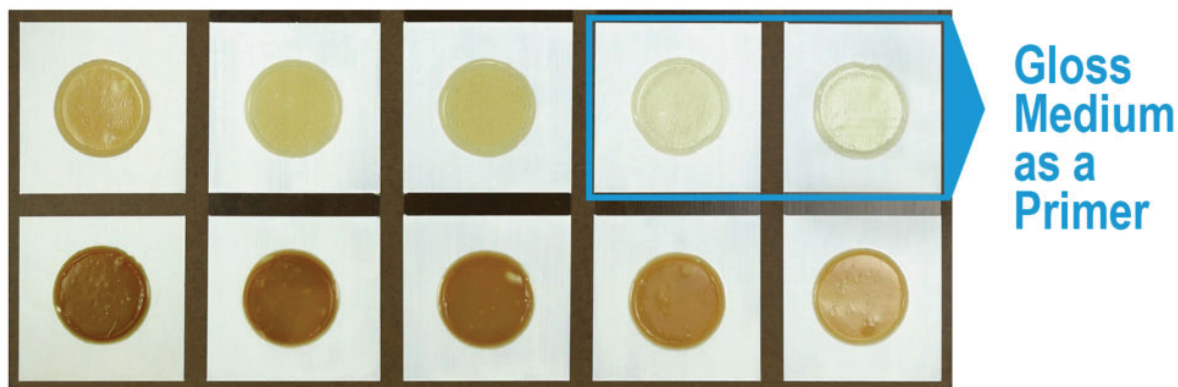
by [Stacy Brock](#) on June 26, 2018 in [Uncategorized](#), [Acrylics](#), [Application](#), [Artist Resources](#)



Support Induced Discoloration or SID describes a phenomenon that can occur when the acrylic appears to change in color upon drying. It usually takes on a yellow, orange or brown tint, due to impurities in the substrate being drawn up into the acrylic film. The discoloration occurs while the paint or medium is drying and curing and should not continue or happen after the film is cured. This can be found in supports including woods, hardboards, particle boards and some canvas and linen supports. These impurities can include glues, resins, sizing and any soluble materials in the substrates. SID is only applicable when painting with acrylic paints and mediums and most noticeable in thicker applications of clear or translucent mediums and gels and in opaque and semi-opaque pastes. It can affect some paint colors as well.

In 1989, GOLDEN partnered with the Art Conservation Department at Buffalo State College to try to understand what was causing a fast yellowing or browning of a matte acrylic film on canvas. Through an error in the testing of a small corner of acrylic gel becoming detached from the canvas and remaining clear, it was determined that the substrate was causing the discoloration and not just the acrylic film changing color on its own. The term Support Induced Discoloration or SID for short was then coined. (1)

Our recommendation to block SID on these substrates has historically been GAC 100, but recent testing has shown that our Gloss Medium is more effective and we have changed our recommendation to reflect that. As you can see in the image below, applying 2 coats of Gloss Medium directly on the support before applying any other product, is most effective in blocking SID from the thick application of Regular Gel Gloss. In the case of OPEN Gel Gloss, which has a very slow dry and curing time, the wet product lingering on the surface allows more impurities to be drawn into the gel and the Gloss Medium is less effective. This is a “worst case scenario” test, as we only recommend painting with OPEN products thinly. It should also be noted that Gloss Medium and GAC 100 do not seal wood, they really just serve to block SID. Washing the canvas before painting can be somewhat effective, but usually this results in a wrinkled fabric and it can be hard to rid of all of the wrinkles, even when stretching. Washing linen was less effective to stop the Support Induced Discoloration. (2)



Top Row: Regular Gel Gloss, Bottom Row: OPEN Gel Gloss.

From left to right: No sizing and Gesso only, One Coat of GAC 100 then Gesso, Two Coats of GAC 100 then Gesso, One Coat of Gloss Medium then Gesso, Two Coats of Gloss Medium then Gesso

More information on Support Induced Discoloration can be found here in the video Support Induced Discoloration (SID), what is it? and how to minimize it: <https://vimeo.com/273304693> and on the goldenpaints.com website

RESOURCES TAKEN FROM GOLDEN'S JUST PAINT ORG.
<https://www.goldenpaints.com/conversation>